



**Cover:** Stamens and carpels formed in the *Arabidopsis apetala1 cauliflower-1* mutant in response to activation of the floral homeotic gene *AGAMOUS*. See article by Gómez-Mena et al. on p. 429.

## Research articles

**Gómez-Mena, C., de Folter, S., Costa, M. M. R., Angenent, G. C. and Sablowski, R.**

Transcriptional program controlled by the floral homeotic gene *AGAMOUS* during early organogenesis

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**Aldaz, S., Morata, G. and Azpiazu, N.**

Patterning function of *homothorax/extradenticle* in the thorax of *Drosophila*

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**Valasek, P., Evans, D. J. R., Maina, F., Grim, M. and Patel, K.**

A dual fate of the hindlimb muscle mass: cloacal/perineal musculature develops from leg muscle cells

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**Cavey, M., Hijal, S., Zhang, X. and Suter, B.**

*Drosophila valois* encodes a divergent WD protein that is required for Vasa localization and Oskar protein accumulation

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**Kutejova, E., Engist, B., Mallo, M., Kanzler, B. and Bobola, N.**

*Hoxa2* downregulates *Six2* in the neural crest-derived mesenchyme

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**Piotrowska-Nitsche, K., Perea-Gomez, A., Haraguchi, S. and Zernicka-Goetz, M.**

Four-cell stage mouse blastomeres have different developmental properties

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**Wilson, R., Vogelsang, E. and Leptin, M.**

FGF signalling and the mechanism of mesoderm spreading in *Drosophila* embryos

491-501

**Serpente, P., Tümpel, S., Ghyselinck, N. B., Niederreither, K., Wiedemann, L. M., Dollé, P., Champon, P., Krumlauf, R. and Gould, A. P.**

Direct crossregulation between retinoic acid receptor  $\beta$  and Hox genes during hindbrain segmentation

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**Brent, A. E., Braun, T. and Tabin, C. J.**

Genetic analysis of interactions between the somitic muscle, cartilage and tendon cell lineages during mouse development

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**Levinson, R. S., Batourina, E., Choi, C., Vorontchikhina, M., Kitajewski, J. and Mendelsohn, C. L.**

Foxd1-dependent signals control cellularity in the renal capsule, a structure required for normal renal development

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**Daudet, N. and Lewis, J.**

Two contrasting roles for Notch activity in chick inner ear development: specification of prosensory patches and lateral inhibition of hair-cell differentiation

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**Brown, D. D., Martz, S. N., Binder, O., Goetz, S. C., Price, B. M. J., Smith, J. C. and Conlon, F. L.**

*Tbx5* and *Tbx20* act synergistically to control vertebrate heart morphogenesis

553-563

**Gregg, C. and Weiss, S.**

CNTF/LIF/gp130 receptor complex signaling maintains a VZ precursor differentiation gradient in the developing ventral forebrain

565-578

**Philipova, R., Kisielewska, J., Lu, P., Larman, M., Huang, J.-Y. and Whitaker, M.**

ERK1 activation is required for S-phase onset and cell cycle progression after fertilization in sea urchin embryos

579-589

**Birsoy, B., Berg, L., Williams, P. H., Smith, J. C., Wylie, C. C., Christian, J. L. and Heasman, J.**

XPACE4 is a localized pro-protein convertase required for mesoderm induction and the cleavage of specific TGF $\beta$  proteins in *Xenopus* development

591-602

**Pagnussat, G. C., Yu, H.-J., Ngo, Q. A., Rajani, S., Mayalagu, S., Johnson, C. S., Capron, A., Xie, L.-F., Ye, D. and Sundaresan, V.**

Genetic and molecular identification of genes required for female gametophyte development and function in *Arabidopsis*

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## Research article: Development and disease

**Seiler, C., Finger-Baier, K. C., Rinner, O., Makhankov, Y. V., Schwarz, H., Neuhauss, S. C. F. and Nicolson, T.**

Duplicated genes with split functions: independent roles of *protocadherin15* orthologues in zebrafish hearing and vision

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